



Aalborg Universitet

AALBORG UNIVERSITY  
DENMARK

## **Cultural Heritage Meets Mobile Media - and New Games Emerge ...**

*How to communicate industrial culture to young people via mobile games*

Jensen, Jens F.

*Publication date:*  
2008

*Document Version*  
Publisher's PDF, also known as Version of record

[Link to publication from Aalborg University](#)

*Citation for published version (APA):*

Jensen, J. F. (2008). *Cultural Heritage Meets Mobile Media - and New Games Emerge ... How to communicate industrial culture to young people via mobile games*. Paper presented at NODEM 08 - Nordic Digital Excellence in Museums, Reykjavik, Iceland. <http://www.tii.se/nodem/conference.php?subpage=entry&id=11>

### **General rights**

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal -

### **Take down policy**

If you believe that this document breaches copyright please contact us at [vbn@aub.aau.dk](mailto:vbn@aub.aau.dk) providing details, and we will remove access to the work immediately and investigate your claim.

## **Cultural Heritage Meets Mobile Media - and New Games Emerge ...**

*- how to communicate industrial culture to young people via mobile games*

Jens F. Jensen, professor in interactive digital media

Head of ExCITE, Center for Experience Economy, Creative Industries, and  
Technologies

Head of ApEx, Center for Applied Experience Economy  
Aalborg University, Denmark

**Abstract:** The paper describes and evaluates a recent project in Aalborg, Denmark, dealing with the communication of cultural heritage and industrial culture to young people via their own preferred media platform: mobile phones. The communication was based on the new cultural genre: *Alternative Reality Games* or *Augmented Reality Games* (ARGs), i.e. games that take place in real life and in real physical settings. The paper concludes that ARGs can be seen as an entirely new way or method of communication cultural heritage. A method that supports a participating, involving, and experience-oriented communication, a method that – so to speak – writes the player into the story *and* history, and a method that because of the narrative form is especially well-suited to support coherences and coherent stories.

**Keywords related to the conference's themes and topics of interest:** Outdoor digital interaction; Interplay between objects and digital media; Tools for education and training in cultural heritage; Mobile technologies that enhance experience;

Designing for experience in cultural/natural heritage; Cultural heritage in role play and game; Social media and museum.

## **Introduction**

*"Please help me... Time is running out.. I am... I... Even my name is nearly forgotten... I can't remember... Yes, of course... I was called DACMAN. I worked here at D.A.C., Dansk Andels Cementfabrik - or DAC as it is called - long time ago. From 1917 till 1957 to be precise. People are forgetting it... One day in spring in 1957, on the 3rd June exactly fifty years ago I was suddenly killed in an accident at work. It wasn't entirely safe to work there at that time, you know... Hello, are you there? Now I'm destined to wander around the old factory area. Until somebody finds the treasure hidden there. Then I will have peace. You can only search for the treasure every fiftieth year.. So, today is the day. 3rd June 2007. A historic day. So please help me... Time passes... You have to answer some questions for me... Let us keep in touch via SMS messaging... If you want to help me, please send the message "DACMAN OK" to 1231... Time is running out... HELP ME... SEND "DACMAN OK" TO 1231. I TRUST YOU. I'M DISAPPEAR... (...the connection is cut short)."*

This was one of the calls you received if you participated in the game DACMAN on the “Day of History” on the 3rd June 2007 at the old factory area of Dansk Andels Cementfabrik in Nørresundby, Denmark.

## **The Cultural Heritage Project "Industrial Culture - Cultural Heritage"**

In 2006 The Heritage Agency of Denmark and Realdania appointed four Danish municipalities to participate as test communities in the cultural heritage project. The main purpose was to alter the perspective on the cultural heritage from being a passive non-developing matter into being an active resource, which might be the starting point for the development of local areas, the marketing or branding of the municipalities as well as the local identity creation and value creation. Aalborg was one of the four appointed municipalities (cf. Jensen et al., 2006, Jensen, 2007c).

The theme of the Aalborg Municipality's cultural heritage project was "Industrial Culture". The purpose of the project was to focus on the cultural heritage associated with the past history of Aalborg as an industrial city as well as to examine the possibilities of preserving and using the old and abandoned industrial complexes for new purposes in a future city based on knowledge and experience economy. Buildings and industrial complexes as Nordkraft, Eternitfabrikken, Østre Havn, Kvægtorvet, Skråen, Spritfabrikkerne, Dansk Andels Cementfabrik in Lindholm, Vokslev Kalkværk in Nibe, Gudumlund, and Hals Barre were considered.

Apart from identification and registration of the cultural heritage, the project also worked with storytelling. That is, emphasizing and developing stories and experience economic themes in order to draw attention to the experience and identity creating values associated with the industrial plants. The objective was as follows: in relation to the past to create an interest for the industrial history of Aalborg; in relation to the present to create an understanding for the importance of the industrial cultural heritage for the city, as it is today, and for the quality of the physical cultural heritage of the

city; and in relation to the future to inspire the involvement of the industrial culture in the planning process and in the planning of a future city.

From the very start, the storytelling group agreed that they would not use the traditional communication forms via printed media or via the computer screen. It was essential to the group that the citizens or the users were present at the localities, that they were physically active, that they related and committed themselves to the physical part of the cultural heritage and the city planning, and that they learned and experienced something about the correlations between past, present, and future.

This is the reason why the storytelling group sought inspiration in the new type of games, called ARGs.

### **Alternate Reality Games**

ARGs is an abbreviation of *Alternate Reality Games* or *Augmented Reality Games*.

The name refers to the fact that these games create a sort of alternative reality or an expanded reality. The games are also referred to as Immersive Games or Pervasive Games, which similarly refer to the ubiquitous nature of the games; that they comprise the surroundings, and that the players are surrounded by and immersed in the game, so to speak (Kuikkaniemi 2006, Schwarz 2006, Jensen 2007b). As games ARGs are characterised by at least four features:

1) ARGs compose a new type of game that mixes real-life treasure hunt, interactive storytelling, quests, and adventure games. The games are based on a complicated

series of riddles or detection of crimes, and usually they have specific targets connecting them to the story and the fictitious characters as well as to the real world and the other players participating in the game.

2) ARGs are not played as a board game or on the computer as most other games are, ARGs, on the contrary, use the real world as scenery or as game board. I.e., the existing reality is used as game setting or as scenario for the game. It might be the urban space in a specific neighbourhood, it might be a natural resort, or it might be a large region. Thus, ARGs are embedded in the real reality, and this reality is in a way expanded or enhanced with new layers of fiction. In this way ARGs can be seen as *augmented reality* or expanded reality.

3) As ARGs take place in the real space, they are also based on the communication media of the real world, especially including mobile media like mobile phones. However, ARGs normally use many different media and move across a large number of media platforms: personal e-mails, websites, newspaper articles, advertisements, personal phone calls from game characters, text messages, fax, chat, or instant messaging, real world artifacts, or real world events related to the game as secret messages left in public spaces etc. In this way ARGs are also a genuine cross-media phenomenon.

4) ARGs often try deliberately to erase the line between game and reality, the in-game and the out-of-game experience in order for the game to occur as a part of the reality, and it is often difficult to determine where the line is between game and reality. The

code word for most ARGs is TINAG, an abbreviation for "This Is Not A Game". I.e., the play or the story pretends to be the real thing rather than a game. The players must see the story as real. At least, the players must doubt whether the story, the events, and the experiences are real or not, and where to draw the line between reality and fiction. This matches the other slogan of ARGs "Nothing is as it appears". Thus, ARGs create a kind of alternative realities or multiple reality layers around the game.

*Alternate Reality Games* have been used in many connections. They are of course used as entertainment, as a more involving, engaging, and active game. They are used as marketing tools for products or services; i.e. as a kind of guerilla marketing. And they are used in connection with learning and communication (Kuikkaniemi 2006, Schwarz 2006, Jensen 2007b). So why not use them in connection with cultural heritage and industrial culture?

### **The ‘Day of History’ and the Day of DACMAN**

At first, the storytelling group decided to take their starting point in the former Dansk Andels Cementfabrik at Lindholm Brygge in Nørresundby, normally referred to as D.A.C. Therefore the games was quickly named DACMAN. Of course, this should refer to Dansk Andels Cementfabrik, but the name was also a tribute to the mother of all computer games "PAC-Man" (Jensen, 2007a).

The year 2007 was appointed the ‘Year of the Industrial Culture’ in Denmark, and during that year a number of events took place, which focused on the theme. On 3rd June, the ‘Day of History’ was celebrated nationwide, and in connection with the

‘Year of the Industrial Culture’ the theme was "Children in the Industrial History".

Therefore, it was obvious to place the launching of DACMAN on this particular ‘Day of History’ on 3rd June 2007. In the plot in DACMAN, the date 3rd June marks, as it appears from the quoted introduction, exactly the open window in time, the historic day - the Day of History - where it is possible to have a look into another era and thus obtain insight in values and cultures of earlier periods.

DACMAN is an interactive treasure hunt restricted to the area around the old Dansk Andels Cementfabrik. The hunt is carried out via mobile phone, either by sending and receiving SMS messages, by receiving phone calls through an interactive voice response service, or by reading physic stations. The plot in the story is that a former worker at DAC now wanders restlessly around the area fearing that the clues from his treasure or heritage disappear before anyone finds it. Therefore the player's task is to help DACMAN find this heritage by uncovering the clues and marks in the landscape which stand as leftovers from the former industrial culture (cf. Lysheim, 2007, Stenbro 2007a, 2007b).

Through the game the player slowly realises that the treasure is not a physical treasure, but the qualities in the cultural heritage in the area. The game results in the players giving their evaluation of what DACMAN's treasure is, which parts they want to preserve, and what it can be used for in the future.

### **SMS Messaging to DACMAN**



All players who played DACMAN on 3rd June gave very positive feedback on the experience. As an integrated part of the game it was possible to comment on the play and the experience via SMS messaging afterwards. Typical comments are: "it was really fun and exiting! And I learned a lot! Regards Rikke"; "it was mega fun and educational"; "I think that it was real fun - brilliant!" and "mega cool, we are locals but have seen places and heard stories we didn't know, fascinating construction". The characteristic of the experience thus circles around words as "fun" and "exiting"; i.e. the experience-orientated and entertaining, and "educational" and "the knowledge of new stories", i.e. the transformation of the user or player.

As an ending to the game the players had the opportunity, through nine photographs of significant buildings and places at the DAC area and the game route, to express what they thought was the most valuable part of the cultural heritage and the most worthy of preservation. The majority voted for the DACs concrete silo, by most local people called "The Cathedral" (45%). The cathedral forms the main building and is the most significant building and symbol of the former concrete factory.

## **DACMAN 2**

On the 'Day of History' DACMAN was executed by means of physical stations in the area, and representatives from the storytelling group were present in the area in order to help people getting started, answer questions, and solve problems. Subsequently, DACMAN has been rewritten, so that it can be played without the physical stations and without any support in the area. DACMAN2 is thus a service running 24/7/365;

24 hours a day, seven days a week, and 365 days a year - based entirely on the players' needs.

DACMAN2 is based on a player manual downloaded from an Internet site, [www.industrikultur-kulturarv.dk](http://www.industrikultur-kulturarv.dk), and printed before the player goes to the area.

Hereafter, the game is self-instructive via the manual, SMS messaging, and phone calls from a server. The messages in the player manual are coded in such a way that they only make sense when the player is in the area and in connection with the received SMS messages. The stations in the area are made up of various items and signs in the cultural landscape that have to be read and deciphered in order to play on (Jensen, 2008a, Jensen, 2008b).

### **Vera from the Western Part of Aalborg**

Subsequently, the storytelling group has produced another ARG game thematising the industrial culture. Here, the main character is the 10-year-old Vera, who has grown up in the western part of Aalborg and in 1933 attended 4th grade at the school in Ryesgade. The plot in this game is that Vera has lost her memory and cannot remember her past. Therefore the players have to help Vera decoding and recognising the 1930ties' Aalborg in the present street scene. Vera takes the player round the area at the old Spritfabrik, Fjordmarken, Skråen, and Vesterbro, where the player sees the city through her eyes and her historic perspective. The game ends at the Cimbrertyrn and with the story about the breaking through of Vesterbro and the opening of the new Limfjordsbro.

In “Vera from the Western Part of Aalborg”, the players have the opportunity to record a short comment to the game about the experience. Among other things there is a recording from a man with an immigrant accent saying: "Hello, it's a real nice game, this one. I really think so. And my two children also think that it's a nice game. And now they'll see the city with new eyes. It is very educational. Goodbye". A woman from Århus says: "Hi, this has been really really exiting. Especially from a newcomer from Århus to hear about the history of Aalborg. Thanks". At last there is a local woman sending a personal greeting: "Hi Vera, it was real fun, also from an old girl from Aalborg. I plan on arranging a company tour, a professional day. At first with some professional topic, and then we'll go treasure hunting in the western part of the city. 25 people. So thank you for today". Most recorded comments from the players are like this. Thus, the concept seems to have a large potential regarding the generation of attention to the historic and the experience-like qualities in an area and at the same time involve and engage the players or users (Jensen, 2008c).

### **New Methods for Communicating Cultural Heritage**

DACMAN, DACMAN2 and “Vera from the Western Part of Aalborg” are not only three new games. They are - in a more general perspective - entirely new ways or methods of communicating the cultural heritage. A method, which simultaneously supports the participating, involving, and experience-orientated communication of cultural heritage. A method, which - so to speak - writes the player into the story *and* history. And a method which because of the narrative form is especially well-suited to support coherences and coherent stories (Jensen, 2008d, 2008e).

Not only are we dealing with a new method for the communication of cultural heritage. During the project, it became more and more clear and obvious that it is a method, which can be used in a long line of different contexts. E.g. it can be used to involve citizens in connection with city planning and planning processes, where the method is even able to activate new target groups.

### **Acknowledgments**

The storytelling group was assembled by representatives from the Museum of Northern Jutland, Aalborg Stadsarkiv, Technical and Environmental Department in Aalborg Municipality, Branding Aalborg, ApEx (Centre for Applied Experience Economy, Aalborg University) and ExCITe (Center for Experience Economy, Creative Industries and Technologies, Aalborg University). The three games have been developed in cooperation with the storytelling group, the mobile marketing firm N'Volve (now called: More Mobile Relations), and scriptwriter Lars Svendsen, Det hemli' teater [The Secret Theatre].

### **References**

*Industrikultur – kulturarv* [industrial culture – cultural heritage], [www.industrikulturr.dk/index.php](http://www.industrikulturr.dk/index.php)

Jens F. Jensen et al., 2006: *Industrikultur – kulturarv* [Industrial Culture – Cultural Heritage], Aalborg Kommune og Nordjyllands Historiske Museum.

Jensen, Jens F., 2007a: *Historien bag DACman* [The story behind DACman], [http://www.industrikulturr.dk/index.php?option=com\\_content&task=view&id=12&Itemid=31](http://www.industrikulturr.dk/index.php?option=com_content&task=view&id=12&Itemid=31)

Jensen, Jens F., 2007b: *Hvad er Alternate Reality Games?* [What is Alternate Reality Games?]

<http://www.industrikultur->

[kulturarv.dk/index.php?option=com\\_content&task=view&id=14&Itemid=33](http://www.industrikultur.dk/index.php?option=com_content&task=view&id=14&Itemid=33)

Jensen, Jens F., 2007c: *Hvad er kulturarvsprojektet?* [What is the Cultural Heritage project?],

<http://www.industrikultur->

[kulturarv.dk/index.php?option=com\\_content&task=view&id=13&Itemid=32](http://www.industrikultur.dk/index.php?option=com_content&task=view&id=13&Itemid=32)

Jensen, Jens F., 2008a: "Mobile medier møder kulturarven ... og nye spil opstår. DACMAN, industrikultur og alternative virkelighedsspil, in: *InDiMedia, Nyhedsbrev om Interaktive Digitale Medier*, Aalborg Universitet.

Jensen, Jens F., 2008b: Kulturarven møder mobile Medier – og nye spil opstår...: Om at formidle industrikultur til børn og unge via mobile spil, in *Evaluering af Industri-kultur 07*, København, Sekretariatet for Industri-kultur 07.

Jensen, Jens F., 2008c: *Museer på Mobilen*, Aalborg Universitet, Aalborg,

<http://www.hum.aau.dk/~riber/>

Jensen, Jens F. 2008d: *Cultural HeriTALes*, [www.hum.aau.dk/~riber/](http://www.hum.aau.dk/~riber/)

Jensen, Jens F., 2008e: *Cultural HeriTALes. FUNKY museumsformidling*, in: Museumsformidlere i Danmark, Århus.

Kuikkaniemi, Kai, 2006: "Toolkit for User-created Augmented Reality Games", in: *Proceedings of the 5<sup>th</sup> international conference on Mobile and ubiquitous multimedia*, ACM

Lysheim, Britta, 2007: "På jagt efter Aalborgs cement-kultur. Et nyudviklet mobil-spil formidler byens gamle industrikultur, in *Børsen*, May 31, 2007

Stenbro, Lise, 2007a: "På opdagelse med mobiltelefonen. ARG: Spil for hele familien får premiere i efterårsferien", in *Nordjyske Stiftstidende*, October 12, 2007.

Stenbro, Lise, 2007b: “Kulturarv: Nyt mobilspil skal lokke unge til at gå på opdagelse i nedlagt fabrik”, in *Nordjyske Stiftstidende*, October 20 2007

Schwarz, Joyce, 2006: *Alternate Reality Gaming 101*,

<http://www.imediaconnection.com/content/8508.asp>